



10992_29 ST25.txt
SEQUENCE LISTING

<110> Institut de Recherches Cliniques de Montreal
Seidah, Nabil
Chrétien, Michel
Marcinkiewicz, Mieczyslaw
Laaksonen, Reijo
Davignon, Jean

<120> MAMMALIAN SUBTILISIN/KEXIN ISOZYME SKI-1: A PROPROTEIN CONVERTASE WITH A UNIQUE CLEAVAGE SPECIFICITY

<130> 10992.29

<140> US 09/830,837

<141> 1999-11-04

<150> PCT/CA1999/01058

<151> 1999-11-04

<150> CA 2,249,648

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<170> PatentIn version 3.3

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35 40 45

Ser Thr Val Val Glu Tyr Glu Tyr Ile Val Ala Phe Asn Gly Tyr Phe
50 55 60

Thr Ala Lys Ala Arg Asn Ser Phe Ile Ser Ser Ala Leu Lys Ser Ser
65 70 75 80

Glu Val Glu Asn Trp Arg Ile Ile Pro Arg Asn Asn Pro Ser Ser Asp
85 90 95

Tyr Pro Ser Asp Phe Glu Val Ile Gln Ile Lys Glu Lys Gln Lys Ala
100 105 110

Gly Leu Leu Thr Leu Glu Asp His Pro Asn Ile Lys Arg Val Thr Pro
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115

120

125

Gln Arg Lys Val Phe Arg Ser Leu Lys Phe Ala Glu Ser Asn Pro Ile
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Val Pro Cys Asn Glu Thr Arg Trp Ser Gln Lys Trp Gln Ser Ser Arg
 145 150 155 160

Pro Leu Lys Arg Ala Ser Leu Ser Leu Gly Ser Gly Phe Trp His Ala
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Thr Gly Arg His Ser Ser Arg Arg Leu Leu Arg Ala Ile Pro Arg Gln
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Val Ala Gln Thr Leu Gln Ala Asp Val Leu Trp Gln Met Gly Tyr Thr
 195 200 205

Gly Ala Asn Val Arg Val Ala Val Phe Asp Thr Gly Leu Ser Glu Lys
 210 215 220

His Pro His Phe Lys Asn Val Lys Glu Arg Thr Asn Trp Thr Asn Glu
 225 230 235 240

Arg Thr Leu Asp Asp Gly Leu Gly His Gly Thr Phe Val Ala Gly Val
 245 250 255

Ile Ala Ser Met Arg Glu Cys Gln Gly Phe Ala Pro Asp Ala Glu Leu
 260 265 270

His Ile Phe Arg Val Phe Thr Asn Asn Gln Val Ser Tyr Thr Ser Trp
 275 280 285

Phe Leu Asp Ala Phe Asn Tyr Ala Ile Leu Lys Lys Met Asp Val Leu
 290 295 300

Asn Leu Ser Ile Gly Gly Pro Asp Phe Met Asp His Pro Phe Val Asp
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Lys Val Trp Glu Leu Thr Ala Asn Asn Val Ile Met Val Ser Ala Ile
 325 330 335

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Met Asp Val Ile Gly Val Gly Ile Asp Phe Glu Asp Asn Ile Ala
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Arg Phe Ser Ser Arg Gly Met Thr Thr Trp Glu Leu Pro Gly Gly Tyr
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Gly Arg Val Lys Pro Asp Ile Val Thr Tyr Gly Ala Gly Val Arg Gly
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Ser Pro Val Val Ala Gly Ala Val Thr Leu Leu Val Ser Thr Val Gln
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Val Asp Lys Pro Glu Trp Arg Pro Tyr Leu Pro Gln Asn Gly Asp Asn
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Ile Glu Val Ala Phe Ser Tyr Ser Ser Val Leu Trp Pro Trp Ser Gly
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Tyr Leu Ala Ile Ser Ile Ser Val Thr Lys Lys Ala Ala Ser Trp Glu
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Gly Ile Ala Gln Gly His Ile Met Ile Thr Val Ala Ser Pro Ala Glu
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Thr Glu Leu His Ser Gly Ala Glu His Thr Ser Thr Val Lys Leu Pro
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Ile Lys Val Lys Ile Ile Pro Thr Pro Pro Arg Ser Lys Arg Val Leu
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Val His Thr Asn Phe Arg Asp Met Tyr Gln His Leu Arg Ser Met Gly
660 665 670

Tyr Phe Val Glu Val Leu Gly Ala Pro Phe Thr Cys Phe Asp Ala Thr
675 680 685

Gln Tyr Gly Thr Leu Leu Leu Val Asp Ser Glu Glu Glu Tyr Phe Pro
690 695 700

Glu Glu Ile Ala Lys Leu Arg Arg Asp Val Asp Asn Gly Leu Ser Leu
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Val Ile Phe Ser Asp Trp Tyr Asn Thr Ser Val Met Arg Lys Val Lys
725 730 735

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740 745 750

Ala Asn Ile Pro Ala Leu Asn Glu Leu Leu Ser Val Trp Asn Met Gly
755 760 765

Phe Ser Asp Gly Leu Tyr Glu Gly Glu Phe Val Leu Ala Asn His Asp
770 775 780

Met Tyr Tyr Ala Ser Gly Cys Ser Ile Ala Lys Phe Pro Glu Asp Gly
785 790 795 800

Val Val Ile Thr Gln Thr Phe Lys Asp Gln Gly Leu Glu Val Leu Lys
805 810 815

Gln Glu Thr Ala Val Val Glu Asn Val Pro Ile Leu Gly Leu Tyr Gln
820 825 830

Ile Pro Ser Glu Gly Gly Arg Ile Val Leu Tyr Gly Asp Ser Asn
835 840 845

Cys Leu Asp Asp Ser His Arg Gln Lys Asp Cys Phe Trp Leu Leu Asp
850 855 860

Ala Leu Leu Gln Tyr Thr Ser Tyr Gly Val Thr Pro Pro Ser Leu Ser
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His Ser Gly Asn Arg Gln Arg Pro Pro Ser Gly Ala Gly Leu Ala Pro
 885 890 895

Pro Glu Arg Met Glu Gly Asn His Leu His Arg Tyr Ser Lys Val Leu
 900 905 910

Glu Ala His Leu Gly Asp Pro Lys Pro Arg Pro Leu Pro Ala Cys Pro
 915 920 925

His Leu Ser Trp Ala Lys Pro Gln Pro Leu Asn Glu Thr Ala Pro Ser
 930 935 940

Asn Leu Trp Lys His Gln Lys Leu Leu Ser Ile Asp Leu Asp Lys Val
 945 950 955 960

Val Leu Pro Asn Phe Arg Ser Asn Arg Pro Gln Val Arg Pro Leu Ser
 965 970 975

Pro Gly Glu Ser Gly Ala Trp Asp Ile Pro Gly Gly Ile Met Pro Gly
 980 985 990

Arg Tyr Asn Gln Glu Val Gly Gln Thr Ile Pro Val Phe Ala Phe Leu
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Gly Ala Met Val Ala Leu Ala Phe Phe Val Val Gln Ile Ser Lys
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gat gca gaa ctt cac att ttc agg gtc ttt acc aat aat cag gta tct Asp Ala Glu Leu His Ile Phe Arg Val Phe Thr Asn Asn Gln Val Ser 270 275 280	1348
tac aca tct tgg ttt ttg gac gcc ttc aac tat gcc att tta aag aag Tyr Thr Ser Trp Phe Leu Asp Ala Phe Asn Tyr Ala Ile Leu Lys Lys 285 290 295 300	1396
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Glu Cys Pro Tyr Met Trp Pro Tyr Cys Ser Gln Pro Ile Tyr Tyr Gly		
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Tyr Phe Pro Arg Asp Asn Leu Arg Met Lys Asn Asp Pro Leu Asp Trp		
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670 675 680		
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Phe Asp Ala Ser Gln Tyr Gly Thr Leu Leu Met Val Asp Ser Glu Glu		
685 690 695 700		

10992_29 ST25.txt

gag tac ttc cct gaa gag atc gcc aag ctc cgg agg gac gtg gac aac Glu Tyr Phe Pro Glu Glu Ile Ala Lys Leu Arg Arg Asp Val Asp Asn 705 710 715	2644
ggc ctc tcg ctc gtc atc ttc agt gac tgg tac aac act tct gtt atg Gly Leu Ser Leu Val Ile Phe Ser Asp Trp Tyr Asn Thr Ser Val Met 720 725 730	2692
aga aaa gtg aag ttt tat gat gaa aac aca agg cag tgg tgg atg ccg Arg Lys Val Lys Phe Tyr Asp Glu Asn Thr Arg Gln Trp Trp Met Pro 735 740 745	2740
gat acc gga gga gct aac atc cca gct ctg aat gag ctg ctg tct gtg Asp Thr Gly Gly Ala Asn Ile Pro Ala Leu Asn Glu Leu Leu Ser Val 750 755 760	2788
tgg aac atg ggg ttc agc gat ggc ctg tat gaa ggg gag ttc acc ctg Trp Asn Met Gly Phe Ser Asp Gly Leu Tyr Glu Gly Glu Phe Thr Leu 765 770 775 780	2836
gcc aac cat gac atg tat tat gcg tca ggg tgc agc atc gcg aag ttt Ala Asn His Asp Met Tyr Tyr Ala Ser Gly Cys Ser Ile Ala Lys Phe 785 790 795	2884
cca gaa gat ggc gtc gtg ata aca cag act ttc aag gac caa gga ttg Pro Glu Asp Gly Val Val Ile Thr Gln Thr Phe Lys Asp Gln Gly Leu 800 805 810	2932
gag gtt tta aag cag gaa aca gca gtt gtt gaa aac gtc ccc att ttg Glu Val Leu Lys Gln Glu Thr Ala Val Val Glu Asn Val Pro Ile Leu 815 820 825	2980
gga ctt tat cag att cca gct gag ggt gga ggc cgg att gta ctg tat Gly Leu Tyr Gln Ile Pro Ala Glu Gly Gly Arg Ile Val Leu Tyr 830 835 840	3028
ggg gac tcc aat tgc ttg gat gac agt cac cga cag aag gac tgc ttt Gly Asp Ser Asn Cys Leu Asp Asp Ser His Arg Gln Lys Asp Cys Phe 845 850 855 860	3076
tgg ctt ctg gat gcc ctc ctc cag tac aca tcg tat ggg gtg aca ccg Trp Leu Leu Asp Ala Leu Leu Gln Tyr Thr Ser Tyr Gly Val Thr Pro 865 870 875	3124
cct agc ctc agt cac tct ggg aac cgc cag cgc cct ccc agt gga gca Pro Ser Leu Ser His Ser Gly Asn Arg Gln Arg Pro Pro Ser Gly Ala 880 885 890	3172
ggc tca gtc act cca gag agg atg gaa gga aac cat ctt cat cgg tac Gly Ser Val Thr Pro Glu Arg Met Glu Gly Asn His Leu His Arg Tyr 895 900 905	3220
tcc aag gtt ctg gag gcc cat ttg gga gac cca aaa cct cgg cct cta Ser Lys Val Leu Glu Ala His Leu Gly Asp Pro Lys Pro Arg Pro Leu 910 915 920	3268
cca gcc tgt cca cgc ttg tct tgg gcc aag cca cag cct tta aac gag Pro Ala Cys Pro Arg Leu Ser Trp Ala Lys Pro Gln Pro Leu Asn Glu 925 930 935 940	3316
acg gcg ccc agt aac ctt tgg aaa cat cag aag cta ctc tcc att gac	3364

10992_29 ST25.txt

Thr Ala Pro Ser Asn Leu Trp Lys His Gln Lys Leu Leu Ser Ile Asp		
945	950	955
ctg gac aag gtg gtg tta ccc aac ttt cga tcg aat cgc cct caa gtg	3412	
Leu Asp Lys Val Val Leu Pro Asn Phe Arg Ser Asn Arg Pro Gln Val		
960	965	970
agg ccc ttg tcc cct gga gag agc ggc gcc tgg gac att cct gga ggg	3460	
Arg Pro Leu Ser Pro Gly Glu Ser Gly Ala Trp Asp Ile Pro Gly Gly		
975	980	985
atc atg cct ggc cgc tac aac cag gag gtg ggc cag acc att cct gtc	3508	
Ile Met Pro Gly Arg Tyr Asn Gln Glu Val Gly Gln Thr Ile Pro Val		
990	995	1000
ttt gcc ttc ctg gga gcc atg gtg gtc ctg gcc ttc ttt gtg gta	3553	
Phe Ala Phe Leu Gly Ala Met Val Val Leu Ala Phe Phe Val Val		
1005	1010	1015
caa atc aac aag gcc aag agc agg ccg aag cg agg aag ccc agg	3598	
Gln Ile Asn Lys Ala Lys Ser Arg Pro Lys Arg Arg Lys Pro Arg		
1020	1025	1030
gtg aag cgc ccg cag ctc atg cag cag gtt cac ccg cca aag acc	3643	
Val Lys Arg Pro Gln Leu Met Gln Gln Val His Pro Pro Lys Thr		
1035	1040	1045
cct tcg gtg tgaccggcag cctggctgac cgtgagggcc agagagagcc	3692	
Pro Ser Val		
1050		
ttcacggacg gcgcgtgggg gtgagccgag ctgtggggc ggctgggtta aaagggatcc	3752	
agtttccagc tgcagggttg ttagagtctg ttctacatgg gcctgccctc ctgtgtatgg	3812	
cagaggctcc tggtacatcg agaagattcc tgtggatccc gtcaggaggg acttagtggc	3872	
tctgcccca gtgagacttc ccgcggcag ctgtgcgcac caaagactcg ggagaactgg	3932	
aaaggctgtc tgggtcttc tgactgcagg ggaaggatgt actttccaaa caaatgatac	3992	
aaccctgacc aagctaaaag acgcttgtt aaggctattt tctatattt ttgttggaa	4052	
aagtcacttt aaagacttgt gctatttgg acaaagcta tttttttgt cagtggatg	4112	
cagttttttt actattccat catgaggaac aacatagatt ccatgatctt ttatgaca	4172	
gtacagactg agatttgaag gaaacatgca caaatctgtaa acatagac cttcgcttta	4232	
ttttttaag tatcacctgc caccatgttt tgtaatttga ggtcttgatt tcaccattgt	4292	
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10992_29 ST25.txt

Gly Lys Lys His Leu Gly Asp Arg Leu Glu Lys Lys Ser Phe Glu Lys
20 25 30

Ala Pro Cys Pro Gly Cys Ser His Leu Thr Leu Lys Val Glu Phe Ser
35 40 45

Ser Thr Val Val Glu Tyr Glu Tyr Ile Val Ala Phe Asn Gly Tyr Phe
50 55 60

Thr Ala Lys Ala Arg Asn Ser Phe Ile Ser Ser Ala Leu Lys Ser Ser
65 70 75 80

Glu Val Asp Asn Trp Arg Ile Ile Pro Arg Asn Asn Pro Ser Ser Asp
85 90 95

Tyr Pro Ser Asp Phe Glu Val Ile Gln Ile Lys Glu Lys Gln Lys Ala
100 105 110

Gly Leu Leu Thr Leu Glu Asp His Pro Asn Ile Lys Arg Val Thr Pro
115 120 125

Gln Arg Lys Val Phe Arg Ser Leu Lys Tyr Ala Glu Ser Asp Pro Thr
130 135 140

Val Pro Cys Asn Glu Thr Arg Trp Ser Gln Lys Trp Gln Ser Ser Arg
145 150 155 160

Pro Leu Arg Arg Ala Ser Leu Ser Leu Gly Ser Gly Phe Trp His Ala
165 170 175

Thr Gly Arg His Ser Ser Arg Arg Leu Leu Arg Ala Ile Pro Arg Gln
180 185 190

Val Ala Gln Thr Leu Gln Ala Asp Val Leu Trp Gln Met Gly Tyr Thr
195 200 205

Gly Ala Asn Val Arg Val Ala Val Phe Asp Thr Gly Leu Ser Glu Lys
210 215 220

His Pro His Phe Lys Asn Val Lys Glu Arg Thr Asn Trp Thr Asn Glu
225 230 235 240

Arg Thr Leu Asp Asp Gly Leu Gly His Gly Thr Phe Val Ala Gly Val
245 250 255

Ile Ala Ser Met Arg Glu Cys Gln Gly Phe Ala Pro Asp Ala Glu Leu

10992_29 ST25.txt

260

265

270

His Ile Phe Arg Val Phe Thr Asn Asn Gln Val Ser Tyr Thr Ser Trp
 275 280 285

Phe Leu Asp Ala Phe Asn Tyr Ala Ile Leu Lys Lys Ile Asp Val Leu
 290 295 300

Asn Leu Ser Ile Gly Gly Pro Asp Phe Met Asp His Pro Phe Val Asp
 305 310 315 320

Lys Val Trp Glu Leu Thr Ala Asn Asn Val Ile Met Val Ser Ala Ile
 325 330 335

Gly Asn Asp Gly Pro Leu Tyr Gly Thr Leu Asn Asn Pro Ala Asp Gln
 340 345 350

Met Asp Val Ile Gly Val Gly Ile Asp Phe Glu Asp Asn Ile Ala
 355 360 365

Arg Phe Ser Ser Arg Gly Met Thr Thr Trp Glu Leu Pro Gly Gly Tyr
 370 375 380

Gly Arg Met Lys Pro Asp Ile Val Thr Tyr Gly Ala Gly Val Arg Gly
 385 390 395 400

Ser Gly Val Lys Gly Gly Cys Arg Ala Leu Ser Gly Thr Ser Val Ala
 405 410 415

Ser Pro Val Val Ala Gly Ala Val Thr Leu Leu Val Ser Thr Val Gln
 420 425 430

Lys Arg Glu Leu Val Asn Pro Ala Ser Met Lys Gln Ala Leu Ile Ala
 435 440 445

Ser Ala Arg Arg Leu Pro Gly Val Asn Met Phe Glu Gln Gly His Gly
 450 455 460

Lys Leu Asp Leu Leu Arg Ala Tyr Gln Ile Leu Asn Ser Tyr Lys Pro
 465 470 475 480

Gln Ala Ser Leu Ser Pro Ser Tyr Ile Asp Leu Thr Glu Cys Pro Tyr
 485 490 495

Met Trp Pro Tyr Cys Ser Gln Pro Ile Tyr Tyr Gly Gly Met Pro Thr
 500 505 510

10992_29 ST25.txt

Val Val Asn Val Thr Ile Leu Asn Gly Met Gly Val Thr Gly Arg Ile
515 520 525

Val Asp Lys Pro Asp Trp Gln Pro Tyr Leu Pro Gln Asn Gly Asp Asn
530 535 540

Ile Glu Val Ala Phe Ser Tyr Ser Ser Val Leu Trp Pro Trp Ser Gly
545 550 555 560

Tyr Leu Ala Ile Ser Ile Ser Val Thr Lys Lys Ala Ala Ser Trp Glu
565 570 575

Gly Ile Ala Gln Gly His Val Met Ile Thr Val Ala Ser Pro Ala Glu
580 585 590

Thr Glu Ser Lys Asn Gly Ala Glu Gln Thr Ser Thr Val Lys Leu Pro
595 600 605

Ile Lys Val Lys Ile Ile Pro Thr Pro Pro Arg Ser Lys Arg Val Leu
610 615 620

Trp Asp Gln Tyr His Asn Leu Arg Tyr Pro Pro Gly Tyr Phe Pro Arg
625 630 635 640

Asp Asn Leu Arg Met Lys Asn Asp Pro Leu Asp Trp Asn Gly Asp His
645 650 655

Ile His Thr Asn Phe Arg Asp Met Tyr Gln His Leu Arg Ser Met Gly
660 665 670

Tyr Phe Val Glu Val Leu Gly Ala Pro Phe Thr Cys Phe Asp Ala Ser
675 680 685

Gln Tyr Gly Thr Leu Leu Met Val Asp Ser Glu Glu Glu Tyr Phe Pro
690 695 700

Glu Glu Ile Ala Lys Leu Arg Arg Asp Val Asp Asn Gly Leu Ser Leu
705 710 715 720

Val Ile Phe Ser Asp Trp Tyr Asn Thr Ser Val Met Arg Lys Val Lys
725 730 735

Phe Tyr Asp Glu Asn Thr Arg Gln Trp Trp Met Pro Asp Thr Gly Gly
740 745 750

Ala Asn Ile Pro Ala Leu Asn Glu Leu Leu Ser Val Trp Asn Met Gly
755 760 765

10992_29 ST25.txt

Phe Ser Asp Gly Leu Tyr Glu Gly Glu Phe Thr Leu Ala Asn His Asp
770 775 780

Met Tyr Tyr Ala Ser Gly Cys Ser Ile Ala Lys Phe Pro Glu Asp Gly
785 790 795 800

Val Val Ile Thr Gln Thr Phe Lys Asp Gln Gly Leu Glu Val Leu Lys
805 810 815

Gln Glu Thr Ala Val Val Glu Asn Val Pro Ile Leu Gly Leu Tyr Gln
820 825 830

Ile Pro Ala Glu Gly Gly Arg Ile Val Leu Tyr Gly Asp Ser Asn
835 840 845

Cys Leu Asp Asp Ser His Arg Gln Lys Asp Cys Phe Trp Leu Leu Asp
850 855 860

Ala Leu Leu Gln Tyr Thr Ser Tyr Gly Val Thr Pro Pro Ser Leu Ser
865 870 875 880

His Ser Gly Asn Arg Gln Arg Pro Pro Ser Gly Ala Gly Ser Val Thr
885 890 895

Pro Glu Arg Met Glu Gly Asn His Leu His Arg Tyr Ser Lys Val Leu
900 905 910

Glu Ala His Leu Gly Asp Pro Lys Pro Arg Pro Leu Pro Ala Cys Pro
915 920 925

Arg Leu Ser Trp Ala Lys Pro Gln Pro Leu Asn Glu Thr Ala Pro Ser
930 935 940

Asn Leu Trp Lys His Gln Lys Leu Leu Ser Ile Asp Leu Asp Lys Val
945 950 955 960

Val Leu Pro Asn Phe Arg Ser Asn Arg Pro Gln Val Arg Pro Leu Ser
965 970 975

Pro Gly Glu Ser Gly Ala Trp Asp Ile Pro Gly Gly Ile Met Pro Gly
980 985 990

Arg Tyr Asn Gln Glu Val Gly Gln Thr Ile Pro Val Phe Ala Phe Leu
995 1000 1005

Gly Ala Met Val Val Leu Ala Phe Phe Val Val Gln Ile Asn Lys
Page 28

10992_29 ST25.txt

1010 1015 1020
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1025 1030 1035

Gln Leu Met Gln Gln Val His Pro Pro Lys Thr Pro Ser Val
1040 1045 1050

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<223> Xaa represents any amino acid

<220>
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<223> Xaa represents an alkyl or an aromatic hydrophobic amino acid

<220>
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<223> Xaa represents an alkyl or aromatic hydrophobic amino acid

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<223> Xaa represents Lys, Leu, Phe or Thr

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<223> Xaa represents any amino acid

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10992_29 ST25.txt

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10992_29 ST25.txt

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<223> Xaa represents any amino acid

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10992_29 ST25.txt

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<221> variation

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<223> i

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<222> (18)..(18)

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10992_29 ST25.txt

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<221> variation

<222> (15)..(15)

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<222> (29)..(29)

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ccngynacnw snggnswngc nacnswgtnc c

31

10992_29 ST25.txt

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<400> 17

Gly His Gly Thr Xaa Xaa Ala Gly
1 5

<210> 18
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10992_29 ST25.txt

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ctcgagggct ctcagccgtg tgct 24

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gaggaagaga cagggataaa c 21

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gggatatgct tagcattgac 20

<210> 23
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10992_29 ST25.txt

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10992_29 ST25.txt

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aggagctcaa tgtggcagga 20

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gtgaccatga agcttgtcaa catctgg 27

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10992_29 ST25.txt
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<400> 35
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24

<210> 36
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28

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<400> 37

Lys Ala Gly Ser Arg Gly Leu Thr Ser Leu Ala Asp Thr Phe
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Gly Gly Ala His Asp Ser Asp Gln His Pro His Ser Gly Ser Gly Arg
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Ser Val Leu Ser Phe Glu Ser Gly Ser Gly Gly
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<212> PRT
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<223> Peptide Substrate

10992_29 ST25.txt

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Trp His Ala Thr Gly Arg His Ser Ser Arg Arg Leu Leu Arg Ala Ile
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Pro Arg

<210> 40

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<212> PRT

<213> Artificial Sequence

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Glu

<210> 41

<211> 9

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<210> 42

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<212> PRT

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Gly

10992_29 ST25.txt

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<210> 45
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<400> 45

Pro Gln Arg Lys Val Phe Arg Ser Leu Lys Tyr Ala Glu Ser Asp
1 5 10 15

<210> 46
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<220>
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<222> (1)..(1)
<223> Xaa represents orthoaminobenzoic acid

<220>
<221> MOD_RES
<222> (13)..(13)
<223> Xaa represents 3-nitrotyrosine

<400> 46

10992_29 ST25.txt

Xaa Val Phe Arg Ser Leu Lys Tyr Ala Glu Ser Asp Xaa Ala
1 5 10

<210> 47
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<220>
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<223> Xaa represents orthoaminobenzoic acid

<220>
<221> MOD_RES
<222> (11)..(11)
<223> Xaa represents 3-nitrotyrosine

<400> 47

Xaa Arg Ser Leu Lys Tyr Ala Glu Ser Asp Xaa Ala
1 5 10

<210> 48
<211> 16
<212> PRT
<213> Homo sapiens

<400> 48

Lys Ala Gly Ser Arg Gly Leu Thr Ser Leu Ala Asp Thr Phe Glu His
1 5 10 15

<210> 49
<211> 16
<212> PRT
<213> Rattus sp.

<400> 49

Lys Ala Gly Ser Arg Gly Leu Thr Thr Ser Leu Ala Asp Thr Phe
1 5 10 15

<210> 50
<211> 16
<212> PRT
<213> Homo sapiens

<400> 50

Arg His Ser Ser Arg Arg Leu Leu Arg Ala Ile Pro Arg Gln Val Ala
1 5 10 15

10992_29 ST25.txt

<210> 51
<211> 16
<212> PRT
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<400> 51

Arg Lys Val Phe Arg Ser Leu Lys Tyr Ala Glu Ser Asp Pro Thr Val
1 5 10 15

<210> 52
<211> 16
<212> PRT
<213> Homo sapiens

<400> 52

Thr Pro Gln Arg Lys Val Phe Arg Ser Leu Lys Tyr Ala Glu Ser Asp
1 5 10 15

<210> 53
<211> 16
<212> PRT
<213> Homo sapiens

<400> 53

Val Thr Pro Gln Arg Lys Val Phe Arg Ser Leu Lys Tyr Ala Glu
1 5 10 15

<210> 54
<211> 16
<212> PRT
<213> Homo sapiens

<400> 54

Ser Gly Ser Gly Arg Ser Val Leu Ser Phe Glu Ser Gly Ser Gly Gly
1 5 10 15

<210> 55
<211> 16
<212> PRT
<213> Homo sapiens

<400> 55

His Ser Pro Gly Arg Asn Val Leu Gly Thr Glu Ser Arg Asp Gly Pro
1 5 10 15

<210> 56
<211> 16
<212> PRT
<213> Rattus sp.

<400> 56

Ala Ser Val Gly Arg Leu Ala Leu Ser Gln Glu Glu Pro Ala Pro Leu

1

5

10

15

<210> 57
<211> 16
<212> PRT
<213> Homo sapiens

<400> 57

Arg Ile Ser Asp Arg Asp Tyr Met Gly Trp Met Asp Phe Gly Arg Arg
1 5 10 15

<210> 58
<211> 16
<212> PRT
<213> Rattus sp.

<400> 58

Asp Pro Arg Leu Arg Gln Phe Leu Gln Lys Ser Leu Ala Ala Ala Thr
1 5 10 15

<210> 59
<211> 16
<212> PRT
<213> Bovis sp.

<400> 59

Leu Leu Lys Glu Leu Gln Asp Leu Ala Leu Gln Gly Ala Lys Glu Arg
1 5 10 15

<210> 60
<211> 16
<212> PRT
<213> Bovis sp.

<400> 60

Met Ala Arg Ala Pro Gln Val Leu Phe Arg Gly Gly Lys Ser Gly Glu
1 5 10 15

<210> 64
<211> 16
<212> PRT
<213> Bovis sp.

<400> 61

Glu Leu Glu Asn Leu Ala Ala Met Asp Leu Glu Leu Gln Lys Ile Ala
1 5 10 15

<210> 62
<211> 16
<212> PRT
<213> Bovis sp.

10992_29 ST25.txt

<400> 62

Ala Ala Met Asp Leu Glu Leu Gln Lys Ile Ala Glu Lys Phe Ser Gly
1 5 10 15

<210> 63

<211> 16

<212> PRT

<213> Rattus sp.

<400> 63

Lys Ser Ser Phe Thr Asn Val Thr Ser Pro Val Val Leu Thr Asn Tyr
1 5 10 15

<210> 64

<211> 16

<212> PRT

<213> Rattus sp.

<400> 64

Lys Ser Gln Thr Pro Leu Val Thr Leu Phe Lys Asn Ala Ile Ile Lys
1 5 10 15

<210> 65

<211> 16

<212> PRT

<213> Rattus sp.

<400> 65

Ser Gln Thr Pro Leu Val Thr Leu Phe Lys Asn Ala Ile Ile Lys Asn
1 5 10 15

<210> 66

<211> 16

<212> PRT

<213> Rattus sp.

<400> 66

Gly Pro Ala Arg Glu Leu Leu Leu Arg Leu Val Gln Leu Ala Gly Thr
1 5 10 15

<210> 67

<211> 16

<212> PRT

<213> Homo sapiens

<400> 67

Leu Leu Arg Lys Lys Arg Thr Thr Ser Ala Glu Lys Asn Thr Cys Gln
1 5 10 15

<210> 68

10992_29 ST25.txt

<211> 16
<212> PRT
<213> Homo sapiens

<400> 68

Glu Glu Ile Ser Glu Val Lys Met Asp Ala Glu Phe Arg His Asp Ser
1 5 10 15

<210> 69
<211> 16
<212> PRT
<213> Homo sapiens

<400> 69

Glu Glu Ile Ser Glu Val Asn Leu Asp Ala Glu Phe Arg His Asp Ser
1 5 10 15

<210> 70
<211> 16
<212> PRT
<213> Homo sapiens

<400> 70

Ile Ser Glu Val Lys Met Asp Ala Glu Phe Arg His Asp Ser Gly Tyr
1 5 10 15

<210> 71
<211> 16
<212> PRT
<213> Homo sapiens

<400> 71

Glu Phe Arg His Asp Ser Gly Tyr Glu Val His His Gln Lys Leu Val
1 5 10 15

<210> 72
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide substrate

<400> 72

Ser Ser Arg Arg Leu Leu Arg Ala Ile Glu
1 5 10

<210> 73
<211> 12
<212> PRT
<213> Artificial sequence

<220>

10992_29 ST25.txt

<223> Peptide Substrate

<400> 73

Ser Gly Ser Gly Arg Ser Val Leu Ser Phe Glu Ser
1 5 10

<210> 74

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Peptide Substrate

<220>

<221> MOD_RES

<222> (1)..(1)

<223> Xaa represents orthoaminobenzoic acid

<220>

<221> MOD_RES

<222> (13)..(13)

<223> Xaa represents 3-nitrotyrosine

<400> 74

Xaa Arg His Ser Ser Arg Arg Leu Leu Arg Ala Ile Xaa Ala
1 5 10

<210> 75

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Peptide Substrate

<220>

<221> MOD_RES

<222> (1)..(1)

<223> Xaa represents orthoaminobenzoic acid

<220>

<221> MOD_RES

<222> (11)..(11)

<223> Xaa represents 3-nitrotyrosine

<400> 75

Xaa Ser Arg Arg Leu Leu Arg Ala Leu Glu Xaa Ala
1 5 10

<210> 76

<211> 15

<212> PRT

<213> Artificial Sequence

10992_29 ST25.txt

<220>
<223> Peptide Substrate

<220>
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<222> (1)..(1)
<223> Xaa represents orthoaminobenzoic acid

<220>
<221> MOD_RES
<222> (14)..(14)
<223> Xaa represents 3-nitrotyrosine

<400> 76

Xaa Asn Gly Pro Lys Ala Gly Ser Arg Gly Leu Thr Ser Xaa Ala
1 5 10 15

<210> 77
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Consensus sequence for growth factors

<400> 77

Cys Leu Asp Asp Ser His Arg Gln Lys Asp Cys Phe Trp
1 5 10

<210> 78
<211> 9
<212> PRT
<213> Homo sapiens

<400> 78

Gly Cys Met Leu Ala Ala Pro Met Lys
1 5

<210> 79
<211> 18
<212> PRT
<213> Homo sapiens

<400> 79

Arg Gly Leu Thr Ser Leu Ala Asp Thr Phe Glu His Val Ile Glu Glu
1 5 10 15

Leu Leu

<210> 80
<211> 10

10992_29 ST25.txt

<212> PRT
<213> Homo sapiens

<400> 80

Lys Ala Gly Ser Arg Gly Leu Thr Ser Leu
1 5 10

<210> 81

<211> 10

<212> PRT
<213> Homo sapiens

<400> 81

Gln Cys Leu Cys Val Lys Thr Thr Ser Gln
1 5 10

<210> 82

<211> 10

<212> PRT

<213> Homo sapiens

<400> 82

Lys Gly Pro Trp Cys Phe Thr Thr Asp Pro
1 5 10

<210> 83

<211> 10

<212> PRT

<213> Homo sapiens

<400> 83

Lys Ser Gln Thr Pro Leu Val Thr Leu Phe
1 5 10

<210> 84

<211> 10

<212> PRT

<213> Homo sapiens

<400> 84

Leu Leu Arg Lys Lys Arg Thr Thr Ser Ala
1 5 10

<210> 85

<211> 10

<212> PRT

<213> Homo sapiens

<400> 85

Val Gly Gly Val Val Ile Ala Thr Val Ile
1 5 10

10992_29 ST25.txt

<210> 86
<211> 8
<212> PRT
<213> Mus sp.

<400> 86

Arg Gly Leu Thr Thr Thr Ser Leu
1 5

<210> 87
<211> 11
<212> PRT
<213> Sus sp.

<400> 78

Arg Gly Leu Thr Ser Ser Ser Ser Ser Leu
1 5 10

<210> 88
<211> 10
<212> PRT
<213> Homo sapiens

<400> 88

Arg Asn Asn Pro Ser Ser Asp Tyr Pro Ser
1 5 10

<210> 89
<211> 8
<212> PRT
<213> Homo sapiens

<400> 89

Arg His Ser Ser Arg Arg Leu Leu
1 5

<210> 90
<211> 4
<212> PRT
<213> Homo sapiens

<400> 90

Arg Arg Leu Leu
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<210> 91
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Fragment resulting from cloning

10992_29 ST25.txt

<400> 91

Pro Gly Arg Tyr Asn Gln Glu His His His His His His
1 5 10

<210> 92

<211> 12

<212> PRT

<213> Homo sapiens

<400> 92

Leu Val Val Leu Leu Cys Gly Lys Lys His Leu Gly
1 5 10

<210> 93

<211> 19

<212> PRT

<213> Homo sapiens

<400> 93

Lys Tyr Ala Glu Ser Asp Pro Thr Val Pro Cys Asn Glu Thr Arg Trp
1 5 10 15

Ser Gln Lys

<210> 94

<211> 8

<212> PRT

<213> Homo sapiens

<400> 94

Arg Lys Val Phe Arg Ser Leu Lys
1 5

<210> 95

<211> 7

<212> PRT

<213> Homo sapiens

<400> 95

Gly Lys Lys Arg Lys Val Phe
1 5

<210> 96

<211> 8

<212> PRT

<213> Homo sapiens

<400> 96

10992_29 ST25.txt

Gly Lys Lys Arg Lys Val Phe Arg
1 5

<210> 97
<211> 10
<212> PRT
<213> Homo sapiens

<400> 97

Gly Lys Lys Arg Lys Val Phe Arg Ser Leu
1 5 10

<210> 98
<211> 11
<212> PRT
<213> Homo sapiens

<400> 98

Gly Lys Lys Arg Lys Val Phe Arg Ser Leu Lys
1 5 10

<210> 99
<211> 6
<212> PRT
<213> Homo sapiens

<400> 99

Arg Gly Leu Thr Ser Leu
1 5

<210> 100
<211> 4
<212> PRT
<213> Homo sapiens

<400> 100

Arg Ser Leu Lys
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<210> 101
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Fluorescent candidate substrate

<220>
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<222> (1)..(1)
<223> Xaa represents Abz

10992_29 ST25.txt

<400> 101

Xaa Val Phe Arg Ser Leu Lys
1 5

<210> 102

<211> 5

<212> PRT

<213> Artificial sequence

<220>

<223> Fluorescent candidate substrate

<220>

<221> VARIANT

<222> (1)..(1)

<223> Xaa represents Abz

<400> 102

Xaa Arg Ser Leu Lys
1 5

<210> 103

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Non fluorescent candidate substrate

<220>

<221> VARIANT

<222> (6)..(6)

<223> Xaa represents Y(N02)

<400> 103

Tyr Ala Glu Ser Asp Xaa Ala
1 5

<210> 104

<211> 8

<212> PRT

<213> Homo sapiens

<400> 104

Arg Arg Leu Leu Arg Ala Ile Pro
1 5

<210> 105

<211> 8

<212> PRT

<213> Homo sapiens

<400> 105

10992_29 ST25.txt

Arg Ser Leu Lys Tyr Ala Glu Ser
1 5

<210> 106
<211> 6
<212> PRT
<213> Homo sapiens

<400> 106

Arg Arg Leu Leu Arg Ala
1 5

<210> 107
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Fluorogenic substrate

<220>
<221> VARIANT
<222> (1)..(1)
<223> Xaa represents Abz

<220>
<221> VARIANT
<222> (11)..(11)
<223> Xaa represents Y(NO2)

<400> 107

Xaa Arg Ser Leu Lys Tyr Ala Glu Ser Asp Xaa
1 5 10

<210> 108
<211> 12
<212> PRT
<213> Homo sapiens

<400> 108

Gln Arg Lys Val Phe Arg Ser Leu Lys Tyr Ala Glu
1 5 10